



CLEAN COPY OF ALL PENDING CLAIMS

1. (Twice Amended) A printable electronic display comprising:

- a. a first set of display electrodes associated with a first layer;
- b. a second set of display electrodes associated with a second layer distinct from the first layer and disposed in an intersecting pattern with respect to the first set of electrodes, the first and second sets of electrodes not contacting one another;
- c. a particle-based, nonemissive display; and
- d. a plurality of nonlinear elements,

the display and the nonlinear elements being sandwiched between the first and second display electrode layers so as to electrically couple at least some electrodes of the first layer with corresponding electrodes of the second layer at regions of intersection and thereby facilitate actuation of the display by the electrodes at said regions.

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- 2. The display system of claim 1 wherein the nonemissive display is an electrophoretic display.
- 3. The display system of claim 1 wherein the nonemissive display is a rotating-ball display.
- 4. The display system of claim 1 wherein the nonemissive display is an electrostatic display.
- 5. The display system of claim 1 further comprising a thin, flexible substrate.

6. The display system of claim 1 wherein the first and second sets of electrodes are each arranged in a planar configuration, the electrodes of the first set being orthogonal to the electrodes of the second set.

7. The display system of claim 6 wherein the electrophoretic display material and the nonlinear elements are arranged in planar form and sandwiched between the first and second sets of electrodes.

8. The display system of claim 1 wherein the electrophoretic display comprises a plurality of discrete, microencapsulated electrophoretic display elements.

9. The display system of claim 8 wherein the electrophoretic display comprises:

- a. an arrangement of discrete microscopic containers, each container being no longer than 500 μm along any dimension thereof; and
- b. within each container, a dielectric fluid and a suspension therein of particles exhibiting surface charges, the fluid and the particles contrasting visually, the particles migrating toward one of the sets of electrodes in response to a potential difference therebetween.

10. The display system of claim 1 wherein the first and second sets of electrodes are printable, at least one of the sets of electrodes being visually transparent.

11. The display system of claim 1 wherein the nonlinear elements are printable.

12. The display system of claim 1 wherein the electrophoretic display is printable.
13. The display system of claim 11 wherein the nonlinear elements are a print-deposited ink exhibiting a nonlinear electrical characteristic.
14. The display system of claim 13 wherein the ink comprises:
 - a. a binder for printing; and
 - b. ZnO particles doped with at least one compound selected from the group consisting of sintered ZnO, Sb₂O₃, MnO, MnO₂, Co₂O₃, CoO, Bi₂O₃ and Cr₂O₃.
15. The display system of claim 14 wherein the binder comprises ethyl cellulose and butyl carbitol.
16. The display system of claim 15 wherein the binder further comprises a glass frit.
17. The display system of claim 15 wherein the binder comprises an epoxy resin.
18. The display system of claim 15 wherein the binder comprises a photohardenable resin.
19. The display system of claim 13 wherein the ink comprises:
 - a. a binder for printing; and

b. a doped, particulate silicon.

20. The display system of claim 19 wherein the binder comprises ethyl cellulose and butyl carbitol.

21. The display system of claim 19 wherein the binder further comprises a glass frit.

22. The display system of claim 19 wherein the binder comprises an epoxy resin.

23. The display system of claim 19 wherein the binder comprises a photohardenable resin.

24. The display system of claim 1 wherein the electrodes comprise a print-deposited conductive ink.

25. The display system of claim 19 wherein the electrodes comprise a print-deposited conductive ink providing a rectifying contact to the silicon.

26. The display system of claim 24 wherein the ink is transparent.

27. The display system of claim 24 wherein the ink comprises indium tin oxide.

28. The display system of claim 1 wherein each set of electrodes is arranged in lanes with spaces therebetween, and further comprising an insulating material located in the spaces.

29. (Canceled)

30. The display system of claim 1 wherein the nonlinear elements comprise Schottky diodes.

31. The display system of claim 1 wherein the nonlinear elements comprise PN diodes.

32. The display system of claim 1 wherein the nonlinear elements comprise varistors.

33. The display system of claim 1 wherein the nonlinear elements comprise silicon films formed from silicide salt.

34. The display system of claim 1 wherein the nonlinear elements comprise a polymer conductor.